

## Water

Unless special approval has been received from the local Health Department, no food service establishments may operate without a safe potable water supply. Determine the establishments water source in advance. When a major weather event or some other unforeseen emergency occurs, wells can become contaminated and should be tested prior to reuse. Municipal water supplies may also be adversely affected and will be tested shortly after the event.

After an exceptional event such as a direct hit from a major hurricane, you must assume that all water sources are contaminated until proven safe. If permission has been obtained from the local Health Department, purify all water used for drinking, cooking, and for washing eating and cooking utensils. Also purify the water used for washing hands, body, kitchen and bathroom surfaces, do not use water that has a dark color, an odor, or contains floating material.

To disinfect water, use ONE of the following three (3) methods:

-Boil at a rolling boil for 1 full minute.

-Add eight(8) drops of liquid chlorine bleach to each gallon of water. Make sure that the bleach has no other active ingredients than 4-6% sodium hypochlorite. Do NOT use scented bleach!

-Add 20 drops of 2% iodine per gallon of clear water or 40 drops per gallon of cloudy water.



Thoroughly mix either of these chemical solutions and let the water stand at least 30 minutes before using.

Always use clean or purified water to wash any parts of the body that have come in contact with surfaces contaminated by flood waters.

## Structural Damage

There are no minimum building standards published to determine if a restaurant that has experienced structural damage is safe for operation. However, common sense dictates the following conditions would render a building unsafe.

- (1) A significant portion of the roof has been blown off (not just roof shingles, but the actual roof).
- (2) A significant section of a window wall has been blown off.
- (3) A large tree or any other heavy weight bearing object is in contact with the building.
- (4) A significant amount of standing water is in building.
- (5) Any extensive damage to the buildings structure that is evident to the eye.

The local fire department or building code official should be contacted if you have any questions about structural integrity of your establishment. If you are not sure that the building is safe, the best course of action would be to leave the premises.



## Before Reopening:

Call your local Health Department to find out if an inspection is needed before reopening. If so, DO NOT restart operations until they have cleared the establishment for operation.

Prior to reopening, you must have:

- Electric power and gas service to operate refrigeration, lights, water heaters and cooking equipment.
- Hot water and refrigerators must be at appropriate temperatures.
- Safe and adequate supply of potable (drinkable) water.
- Effective and approved sewage disposal.
- Discarded and de-natured all spoiled and suspect food.
- Cleaned and sanitized your establishment.

Remember: When in doubt, throw it out!



For more information please feel free to contact:

Local Health Department  
Building Code Official  
National Restaurant Association

Or

Log on to:

Centers For Disease Control  
<http://www.bt.cdc.gov/disasters>  
National Restaurant Association  
<http://www.restaurant.org>



# EMERGENCY GUIDELINES FOR FOOD ESTABLISHMENTS





## Planning and Preparation Before the Storm

- Develop a written operational plan for your establishment and discuss with staff.
- Contact your insurance agent and the National Restaurant Association (NRA) for suggestions on how best to prepare for an emergency.
- Maintain your structure in sound condition.
- Consider purchasing or leasing electrical generators to operate equipment and lights and/or dry ice or refrigerated trucks to reduce food loss. If you use a generator, make sure you have enough fuel on hand for continued operation.
- Ensure that your refrigerators and freezers are in good operational condition at all times.
- Keep flashlights and battery operated radio with fresh batteries in the establishment.
- When a major storm is threatening, reduce the air temperature of your refrigerators and freezers. Repack freezers to fill one/some, leave others empty. Full freezers hold temperatures twice as long. Keep doors closed as much as possible to maintain temperatures in these units. You may consider safely transporting food stock to a site in a non-threatened area (especially if you are located in a site prone to flooding.)
- Make sure ice machines and ice bins are full. Bag loose ice and place in freezer. Having stocks of ice on hand may help prevent food loss after power loss.
- Contact your natural gas supplier to discuss the possible need for gas disconnection in case the building has to be evacuated and have the necessary tools available for disconnect.

- Determine your water source.
- Store food supply above known flood level.



## Food Salvage Guidelines Following Power Outages

**You must have power to operate.** It is very important to remember that the following information serves only as guidelines. The actual shelf life of food products depends on many factors.

Refrigerators, coolers, and freezers differ in the type of construction materials used, just as they differ on the ability to retain cold temperatures (insulation). Small factors, such as a worn or improperly fitting door gasket or a loose seal can result in the loss of several hours of shelf life.

### Food from a freezer

- Without power, a properly maintained full freezer will keep food for approximately two days. A half-full freezer will generally keep food for a period of only one day.
- Leaving the freezer closed will make food last as long as possible.
- When the power returns, it is generally safe to refreeze foods that still contain ice crystals.
- Do not refreeze foods once they have thawed.
- If product has thawed but has not exceeded 41° F., transfer product to cooler facilities and treat as refrigerated food.
- When checking food temperatures, remember that foods generally thaw from the outside in, so the warmest part of the food will be on the outside portion or surface of the product.

**When in doubt, throw it out.**

### Food from the refrigerator

- A refrigerator or cooler will usually keep food cool for four to six hours without power, depending on the temperature in the kitchen.
- Once power has been restored, take representative sample temperature checks, do not open the cooler door any more than necessary until proper ambient air temperatures are obtained.

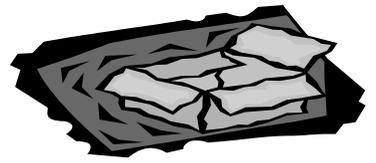


Discard the following items if they are found to be warmer than 41° F. for more than 4 hours: raw or cooked meat, poultry, or seafood; milk, cream, yogurt, custard, soft cheese, eggs, egg substitutes; cooked pasta or salads; stews, soups, deli meats, casseroles; previously opened containers of mayonnaise and tartar sauces, refrigerated cookie dough, cream-filled pastries, chiffon, custard, or cheese pie and pizzas with meat toppings. **If time and temperature have not been documented discard any or all of the above items.**

- Again, when in doubt, throw it out.

### Use of Dry Ice

If you have prior notice of a power outage or that it appears that your freezer will be off longer than a day, dry ice can be used to keep foods cold. As a guideline, 25 pounds of dry ice for every 10 cubic feet of freezer storage capacity should keep the food in half full freezer frozen for 2 to 3 days. The same ratio of dry ice to freezer capacity in a fully loaded freezer can keep food frozen for 3 to 4 days.



When handling dry ice, avoid breathing fumes and be sure to wear insulated gloves to prevent burns. Place heavy cardboard directly on the packages of frozen food, then place dry ice on the cardboard. Upright freezers will require cardboard and dry ice above the food on each shelf.

Block ice can be used in a refrigerator where freezing temperatures are not necessary. Alternatives to ice are frozen “freeze pack” and water frozen in plastic containers such as 2 liter soda bottles.



## Flooding and Food Safety

Advance preparation is a key to food safety during a disaster, whether natural or man made. Storm damaged foods may or may not be safe to eat and in particular flooding raises health and safety issues that should be of concern to everyone affected by the event. Floodwaters may carry silt, raw sewage, oil or chemical waste. Foods that have come in contact with them will pose threats to your health.

People living in areas subject to floods should, if possible, raise equipment and supplies to a higher level or transport to another location. Refrigerators or freezers can be raised by putting cement blocks under their corners. Canned goods and other foods should be moved to higher ground. Sandbagging to keep waters out may or may not be possible.

Should floodwaters contaminate foods the following tips may be helpful:

Discard all food that has come into contact with flood waters. Some cans may be salvaged. Contact your local Health Department for salvage guidelines